

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS
PATENT OF THE UNITED STATES IS:

1. L-carnitine, having a particle size such that it substantially passes through a 100 USBS mesh sieve.
- 5 2. The L-carnitine of Claim 1, which is selected from the group consisting of L-carnitine, salts of L-carnitine, alkanoyl L-carnitines, and salts of alkanoyl L-carnitine.
- 10 3. The L-carnitine of Claim 1, which is selected from the group consisting of L-carnitine chloride, L-carnitine bromide, L-carnitine orotate, L-carnitine acid aspartate, L-carnitine acid phosphate, L-carnitine fumarate, L-carnitine lactate, L-carnitine maleate, L-carnitine acid maleate, L-carnitine acid oxalate, L-carnitine acid sulfate, L-carnitine glucose phosphate, L-carnitine tartrate, L-carnitine acid tartrate, L-carnitine iodate, L-carnitine aspartate, L-carnitine citrate, L-carnitine acid citrate, L-carnitine acid fumarate, L-carnitine glycerophosphate, L-carnitine mucate, L-carnitine orotate, L-carnitine oxalate, L-carnitine sulfate, L-carnitine trichloroacetate, L-carnitine trifluoroacetate, L-carnitine methanesulfonate, L-carnitine pamoate, L-carnitine acid pamoate, C₂₋₈ alkanoyl L-carnitines, C₂₋₈ alkanoyl L-carnitine chloride, C₂₋₈ alkanoyl L-carnitine bromide, C₂₋₈ alkanoyl L-carnitine orotate, C₂₋₈ alkanoyl L-carnitine acid aspartate, C₂₋₈ alkanoyl L-carnitine acid phosphate, C₂₋₈ alkanoyl L-carnitine fumarate, C₂₋₈ alkanoyl L-carnitine lactate, C₂₋₈ alkanoyl L-carnitine maleate, C₂₋₈ alkanoyl L-carnitine acid maleate, C₂₋₈ alkanoyl L-carnitine acid oxalate, C₂₋₈ alkanoyl L-carnitine acid sulfate, C₂₋₈ alkanoyl L-carnitine glucose phosphate, C₂₋₈ alkanoyl L-carnitine tartrate, C₂₋₈ alkanoyl L-carnitine acid tartrate, C₂₋₈ alkanoyl L-carnitine iodate, C₂₋₈ alkanoyl L-carnitine aspartate, C₂₋₈ alkanoyl L-carnitine citrate, C₂₋₈ alkanoyl L-carnitine acid citrate, C₂₋₈ alkanoyl L-carnitine fumarate, C₂₋₈

5 alkanoyl L-carnitine glycerophosphate, C_{2-8} alkanoyl L-carnitine mucate, C_{2-8} alkanoyl L-carnitine orotate, C_{2-8} alkanoyl L-carnitine oxalate, C_{2-8} alkanoyl L-carnitine sulfate, C_{2-8} alkanoyl L-carnitine trichloroacetate, C_{2-8} alkanoyl L-carnitine trifluoroacetate, C_{2-8} alkanoyl L-carnitine methanesulfonate, C_{2-8} alkanoyl L-carnitine pamoate, and C_{2-8} alkanoyl L-carnitine acid pamoate.

4. A method of preparing L-carnitine, having a particle size such that it substantially passes through a 100 USBS mesh sieve, comprising:

10 (1) subjecting L-carnitine having a particle size such that it does not pass through a 100 USBS mesh sieve to size reduction, to obtain size-reduced L-carnitine;

and

15 (2) subjecting said size-reduced L-carnitine to sieving through a 100 USBS mesh sieve and selecting that portion which passes through said 100 USBS mesh sieve.

5. The method of Claim 4, wherein said L-carnitine is selected from the group consisting of L-carnitine, salts of L-carnitine, alkanoyl L-carnitines, and salts of alkanoyl L-carnitine.

6. The method of Claim 4, wherein said L-carnitine is selected from the group consisting of L-carnitine chloride, L-carnitine bromide, L-carnitine orotate, L-carnitine acid aspartate, L-carnitine acid phosphate, L-carnitine fumarate, L-carnitine lactate, L-carnitine maleate, L-carnitine acid maleate, L-carnitine acid oxalate, L-carnitine acid sulfate, L-carnitine glucose phosphate, L-carnitine tartrate, L-carnitine acid tartrate, L-carnitine iodate, L-carnitine aspartate, L-carnitine citrate, L-carnitine acid citrate, L-carnitine acid fumarate, L-carnitine glycerophosphate, L-carnitine mucate, L-carnitine orotate, L-carnitine oxalate, L-carnitine sulfate, L-carnitine

- trichloroacetate, L-carnitine trifluoroacetate, L-carnitine methanesulfonate, L-
carnitine pamoate, L-carnitine acid pamoate, C₂₋₈ alkanoyl L-carnitines, C₂₋₈ alkanoyl
L-carnitine chloride, C₂₋₈ alkanoyl L-carnitine bromide, C₂₋₈ alkanoyl L-carnitine
orotate, C₂₋₈ alkanoyl L-carnitine acid aspartate, C₂₋₈ alkanoyl L-carnitine acid
5 phosphate, C₂₋₈ alkanoyl L-carnitine fumarate, C₂₋₈ alkanoyl L-carnitine lactate, C₂₋₈
alkanoyl L-carnitine maleate, C₂₋₈ alkanoyl L-carnitine acid maleate, C₂₋₈ alkanoyl L-
carnitine acid oxalate, C₂₋₈ alkanoyl L-carnitine acid sulfate, C₂₋₈ alkanoyl L-carnitine
glucose phosphate, C₂₋₈ alkanoyl L-carnitine tartrate, C₂₋₈ alkanoyl L-carnitine acid
tartrate, C₂₋₈ alkanoyl L-carnitine iodate, C₂₋₈ alkanoyl L-carnitine aspartate, C₂₋₈
10 alkanoyl L-carnitine citrate, C₂₋₈ alkanoyl L-carnitine acid citrate, C₂₋₈ alkanoyl L-
carnitine acid fumarate, C₂₋₈ alkanoyl L-carnitine glycerophosphate, C₂₋₈ alkanoyl L-
carnitine mucate, C₂₋₈ alkanoyl L-carnitine orotate, C₂₋₈ alkanoyl L-carnitine oxalate,
C₂₋₈ alkanoyl L-carnitine sulfate, C₂₋₈ alkanoyl L-carnitine trichloroacetate, C₂₋₈
alkanoyl L-carnitine trifluoroacetate, C₂₋₈ alkanoyl L-carnitine methanesulfonate, C₂₋₈
15 alkanoyl L-carnitine pamoate, and C₂₋₈ alkanoyl L-carnitine acid pamoate.

7. A composition, comprising:

(A) L-carnitine having a particle size such that it substantially passes through
a 100 USBS mesh sieve; and

(B) a pharmaceutically acceptable excipient or carrier.

20 8. The composition of Claim 7, wherein said L-carnitine is selected from the
group consisting of L-carnitine, salts of L-carnitine, alkanoyl L-carnitines, and salts
of alkanoyl L-carnitine.

9. The composition of Claim 7, wherein said L-carnitine is selected from the
group consisting of L-carnitine chloride, L-carnitine bromide, L-carnitine orotate, L-

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carnitine acid aspartate, L-carnitine acid phosphate, L-carnitine fumarate, L-carnitine lactate, L-carnitine maleate, L-carnitine acid maleate, L-carnitine acid oxalate, L-carnitine acid sulfate, L-carnitine glucose phosphate, L-carnitine tartrate, L-carnitine acid tartrate, L-carnitine iodate, L-carnitine aspartate, L-carnitine citrate, L-carnitine acid citrate, L-carnitine acid fumarate, L-carnitine glycerophosphate, L-carnitine mucate, L-carnitine orotate, L-carnitine oxalate, L-carnitine sulfate, L-carnitine trichloroacetate, L-carnitine trifluoroacetate, L-carnitine methanesulfonate, L-carnitine pamoate, L-carnitine acid pamoate, C₂₋₈ alkanoyl L-carnitines, C₂₋₈ alkanoyl L-carnitine chloride, C₂₋₈ alkanoyl L-carnitine bromide, C₂₋₈ alkanoyl L-carnitine 10 orotate, C₂₋₈ alkanoyl L-carnitine acid aspartate, C₂₋₈ alkanoyl L-carnitine acid phosphate, C₂₋₈ alkanoyl L-carnitine fumarate, C₂₋₈ alkanoyl L-carnitine lactate, C₂₋₈ alkanoyl L-carnitine maleate, C₂₋₈ alkanoyl L-carnitine acid maleate, C₂₋₈ alkanoyl L-carnitine acid oxalate, C₂₋₈ alkanoyl L-carnitine acid sulfate, C₂₋₈ alkanoyl L-carnitine glucose phosphate, C₂₋₈ alkanoyl L-carnitine tartrate, C₂₋₈ alkanoyl L-carnitine acid 15 tartrate, C₂₋₈ alkanoyl L-carnitine iodate, C₂₋₈ alkanoyl L-carnitine aspartate, C₂₋₈ alkanoyl L-carnitine citrate, C₂₋₈ alkanoyl L-carnitine acid citrate, C₂₋₈ alkanoyl L-carnitine acid fumarate, C₂₋₈ alkanoyl L-carnitine glycerophosphate, C₂₋₈ alkanoyl L-carnitine mucate, C₂₋₈ alkanoyl L-carnitine orotate, C₂₋₈ alkanoyl L-carnitine oxalate, C₂₋₈ alkanoyl L-carnitine sulfate, C₂₋₈ alkanoyl L-carnitine trichloroacetate, C₂₋₈ 20 alkanoyl L-carnitine trifluoroacetate, C₂₋₈ alkanoyl L-carnitine methanesulfonate, C₂₋₈ alkanoyl L-carnitine pamoate, and C₂₋₈ alkanoyl L-carnitine acid pamoate.

10. The composition of Claim 7, which is suitable for oral ingestion.

11. The composition of Claim 7, which further comprises hydroxycitric acid, Co-enzyme Q10, chromium picolinate, gamma linolenic acid, resveratrol, omega 3 acids, an antioxidant, or a vitamin.

12. In a method of treatment, therapy, or prevention, comprising orally 5 administering an effective amount of L-carnitine to a subject in need thereof, the improvement being said L-carnitine has a particle size such that it substantially passes through a 100 USBS mesh sieve.

13. The method of Claim 12, wherein said L-carnitine is selected from the 10 group consisting of L-carnitine, salts of L-carnitine, alkanoyl L-carnitines, and salts of alkanoyl L-carnitine.

14. The method of Claim 12, wherein said L-carnitine is selected from the 15 group consisting of L-carnitine chloride, L-carnitine bromide, L-carnitine orotate, L-carnitine acid aspartate, L-carnitine acid phosphate, L-carnitine fumarate, L-carnitine lactate, L-carnitine maleate, L-carnitine acid maleate, L-carnitine acid oxalate, L-carnitine acid sulfate, L-carnitine glucose phosphate, L-carnitine tartrate, L-carnitine acid tartrate, L-carnitine iodate, L-carnitine aspartate, L-carnitine citrate, L-carnitine acid citrate, L-carnitine acid fumarate, L-carnitine glycerophosphate, L-carnitine mucate, L-carnitine orotate, L-carnitine oxalate, L-carnitine sulfate, L-carnitine trichloroacetate, L-carnitine trifluoroacetate, L-carnitine methanesulfonate, L-carnitine pamoate, L-carnitine acid pamoate, C₂₋₈ alkanoyl L-carnitines, C₂₋₈ alkanoyl L-carnitine chloride, C₂₋₈ alkanoyl L-carnitine bromide, C₂₋₈ alkanoyl L-carnitine orotate, C₂₋₈ alkanoyl L-carnitine acid aspartate, C₂₋₈ alkanoyl L-carnitine acid phosphate, C₂₋₈ alkanoyl L-carnitine fumarate, C₂₋₈ alkanoyl L-carnitine lactate, C₂₋₈ alkanoyl L-carnitine maleate, C₂₋₈ alkanoyl L-carnitine acid maleate, C₂₋₈ alkanoyl L-

carnitine acid oxalate, C₂₋₈ alkanoyl L-carnitine acid sulfate, C₂₋₈ alkanoyl L-carnitine glucose phosphate, C₂₋₈ alkanoyl L-carnitine tartrate, C₂₋₈ alkanoyl L-carnitine acid tartrate, C₂₋₈ alkanoyl L-carnitine iodate, C₂₋₈ alkanoyl L-carnitine aspartate, C₂₋₈ alkanoyl L-carnitine citrate, C₂₋₈ alkanoyl L-carnitine acid citrate, C₂₋₈ alkanoyl L-
5 carnitine acid fumarate, C₂₋₈ alkanoyl L-carnitine glycerophosphate, C₂₋₈ alkanoyl L-carnitine mucate, C₂₋₈ alkanoyl L-carnitine orotate, C₂₋₈ alkanoyl L-carnitine oxalate, C₂₋₈ alkanoyl L-carnitine sulfate, C₂₋₈ alkanoyl L-carnitine trichloroacetate, C₂₋₈ alkanoyl L-carnitine trifluoroacetate, C₂₋₈ alkanoyl L-carnitine methanesulfonate, C₂₋₈ alkanoyl L-carnitine pamoate, and C₂₋₈ alkanoyl L-carnitine acid pamoate.

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